

### ABSTRACT OF THE DISCLOSURE

An acidic aqueous hydrogen peroxide solution is provided with improved disinfectant activity. Concentrated solutions preferably contain up to about 8 wt./wt. % H<sub>2</sub>O<sub>2</sub> and as-used concentrations contain about 0.5% wt./wt.% H<sub>2</sub>O<sub>2</sub>. The solution also contains from 0.05 to 8.0 wt./wt.% of at least one phosphorous-based acid, e.g. phosphoric acid and/or a phosphonic acid with from 1 to 5 phosphonic acid groups, and from 0.02 to 5 wt./wt.% of at least one anionic surfactant. The surfactant is selected from C<sub>8</sub> to C<sub>16</sub> alkyl aryl sulfonic acids, sulfonated C<sub>12</sub> to C<sub>22</sub> carboxylic acids, C<sub>8</sub> to C<sub>22</sub> alkyl diphenyl oxide sulfonic acids, naphthalene sulfonic acids, C<sub>8</sub> to C<sub>22</sub> alkyl sulfonic acids, and alkali metal and ammonium salts thereof, and alkali metal C<sub>8</sub> to C<sub>18</sub> alkyl sulfates, and mixtures thereof. Most preferably the solution has an emulsifier, e.g. a polyoxyethylene surfactant. The solution also preferably contains a hydrotrope, e.g. an alkylated sulfonated diphenyl oxide salt. The solution may also contain corrosion inhibitors and/or lower alcohols.